

DREAMBOX

DM 7000-S



Instruction Manual

Warranty card
HDD installation card

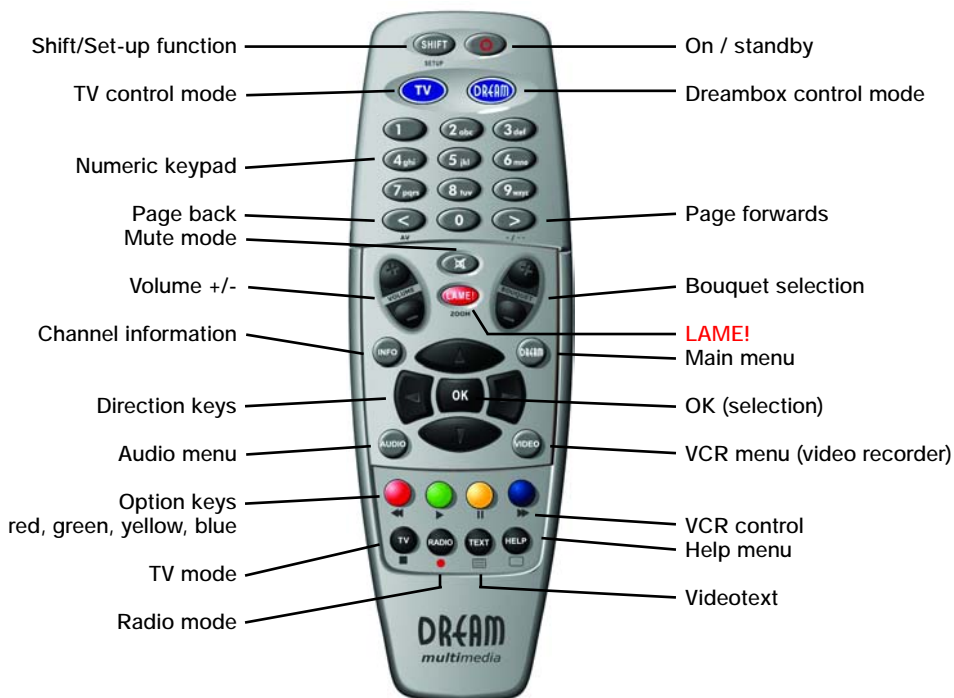




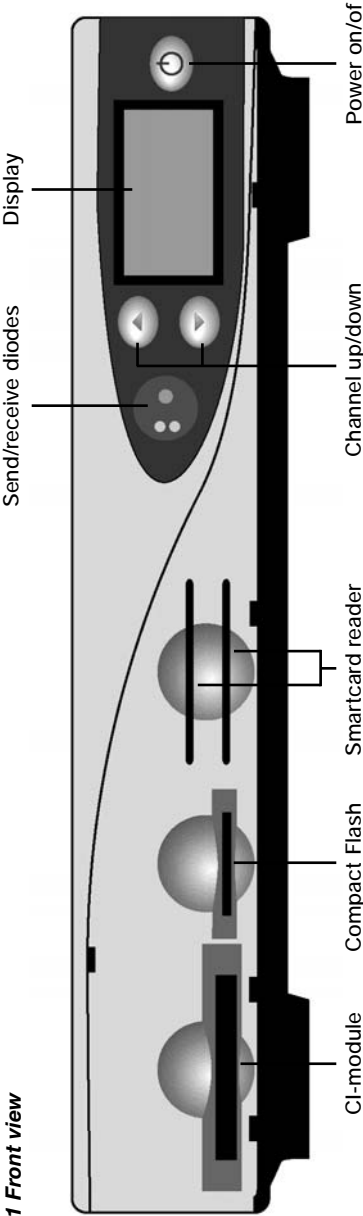
Linux OS Set-top box with PCMCIA interface for CA modules, for receiving clear and encoded ASTRA and EUTELSAT DVB programmes.

- Connector for internal hard disk
 - Compact Flash reader
 - Graphical display

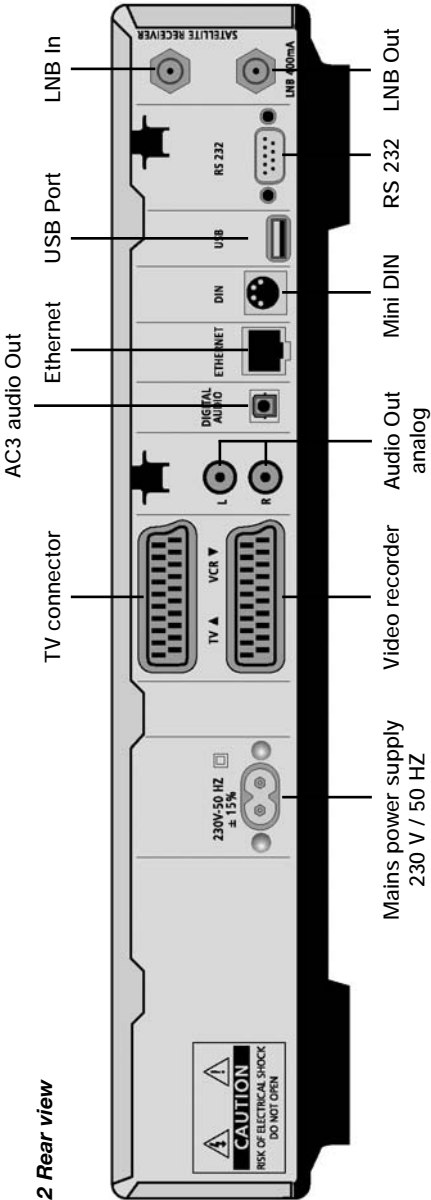
1. Remote control _____



2.1 Front view



2.2 Rear view



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4. Safety instructions

For your protection, please read the safety instructions thoroughly before starting to use your DM 7000. The manufacturer accepts no responsibility for damage which occurs as a result of incorrect handling or from failure to observe the safety instructions.

- The unit must be positioned such that it is sufficiently ventilated.
- The cover of the unit must not be covered, and there must be sufficient distance from other equipment. The ventilation ports of the device must always remain unobstructed, so that the warm air can be carried away from the interior of the unit.
- Do not place any vases or other containers with fluids in them on the unit. Water must not be allowed to drip or to spray onto the unit.
- No burning objects, such as candles or oil lamps, may be placed on the unit.
- The unit must only be operated in moderate climactic conditions.
- Never open the unit yourself! There is a risk of electric shocks. Should it become necessary to open the unit, this must be carried out by qualified personnel.



- Never introduce foreign metal objects into the slots or the ventilation ports.
- Installation or exchange of a hard disk drive may only be carried out by qualified personnel, or a dealer trained for the purpose.

WARNING!

Conversion or modification of the unit leads to loss of warranty if not carried out by a specialist dealer and certified in writing.

WARNING!

We recommend that disk drives should be installed by the dealer.

The guarantee lapses if a hard disk is incorrectly installed.

4.1 Periods of non-use

- If the unit is not operated for longer periods of time, it should be completely disconnected from the mains power supply.
- The unit should also be disconnected from the mains supply during electrical storms.

4.2 Additional safety instructions

- Connection to the external unit (LNB)
Remove the power cable of the DM7000 from the mains socket before you connect or remove the cable of the LNB.
- Connection to the television
Remove the power cable of the DM 7000 from the mains socket before you connect the SCART cable to your television.
- The unit must immediately be disconnected from the mains power supply if the power cable or socket show any signs of damage.
- The unit must immediately be disconnected from the mains power supply if it is exposed to dampness or if dampness penetrates it.
- The unit must immediately be disconnected from the mains power supply if substantial external damage is discovered.

Do not expose your Dreambox to direct sunlight, lightning or rain.

Earthing: The LNB cable must be earthed.

The earthing system must conform to SABS 061.

Cleaning: Remove the power cable of the Dreambox from the mains socket before you clean the Dreambox. Use a slightly damp cloth without cleaning agents.

Connect your Dreambox only to sockets which are suitable for the purpose.

Do not allow overloads to occur.

General:

Environmental temperature +15°C ... +35°C

Atmospheric humidity < 80%

Dimensions (W x D x H): 374 mm x 230 mm x 63 mm

Weight: 1.8 kg without HDD

5. Getting started

5. General notes

Check that everything has been delivered.

You should have received the following:

- 1 receiver
- 1 power cable
- 1 remote control
- 1 Instruction Manual
(latest version available from <http://www.dream-multimedia-tv.de>)
- 1 guarantee card
- 2 batteries (1.5V microcell)
- 2 hard disk installation frames (supplied within the unit from the factory)
- 1 IDE connection cable
- 1 power cable for the hard disk

Optionally available:

- 1 infrared keyboard

- Check the battery polarity carefully and install the batteries supplied in the battery compartment of the remote control.
- Before you connect the receiver, please read the safety instructions under point 6. Safety Instructions.
- Connect the external unit (dish, LNB) with an F plug to the LNB input on the receiver.
- Connect the receiver with a Scart cable to your television (Scart socket TV), and to a video recorder or DVD player (Scart socket VCR).
- Plug the mains cable into the receiver and then into a suitable 230V / 50Hz power socket.

5.1 Hifi amplifier

5.1.1 Analog

To connect your Dreambox to a hifi amplifier, please use a suitable phono cable. Connect this to the receiver at AUDIO R/L and to a free input (e.g. AUX or CD) on your hifi amplifier.

5.1.2 Digital

If your amplifier has a suitable optical input, connect the DIGITAL AUDIO socket on the receiver to the optical input of the amplifier with an optical cable. Sampling frequencies of 16, 22.05, 24, 32, 44.1 and 48 kHz are available. This output also provides the Dolby Digital signal (AC3) when this is broadcast.

5. Getting started, 6. Disposal notes, 7. Important notes on operation

5.2 RS 232 serial interface

The RS 232 interface is used to update the operating software and for pre-programming with a PC.

5.3 Ethernet

The Ethernet interface can be used to update the operating software and for pre-programming with a PC.

6. Disposal notes

The packaging of the DM 7000 consists exclusively of recyclable materials. Please dispose of these appropriately.

Take care that dead batteries from the remote control and electronic scrap are not disposed of in ordinary rubbish, but are properly disposed of (return to the specialist dealer, or special waste disposal).

7. Important notes on operation

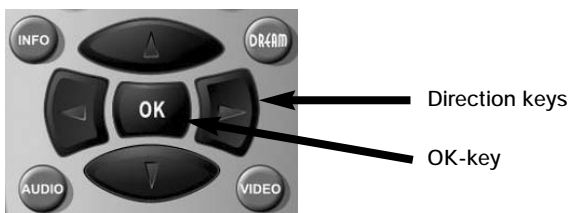
The operation of the Dreambox is greatly simplified with an OSD (On Screen Display). All available options are displayed with 4 coloured dots (red, green, yellow, blue) and can be activated with the remote control.

The options change depending on the menu, and are labelled appropriately in each menu.

You can leave all menus and channel lists with the LAME! key.

The menus are in general operated with the on your remote control.

To enter a sub-menu, confirm it with the OK key.



8. Main menu _____

8. Main menu

This OSD (On Screen Display) is used to navigate to the individual submenus.



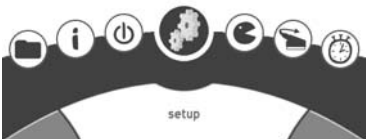
Here you can enter the File menu.



Here you can enter the Info menu.



Here you can switch your Dreambox into deep standby mode.



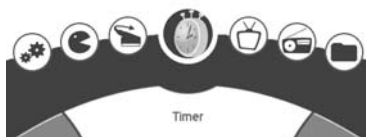
Here you can enter the Setup menu.



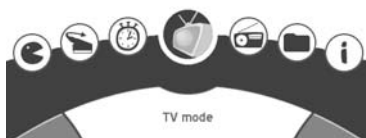
Here you can enter the Games menu.



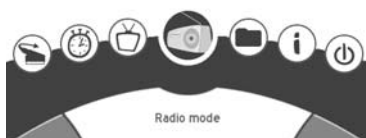
Here you can switch the Scart connection between video input and output.



Here you can enter the Timer menu.



Switches to TV mode.

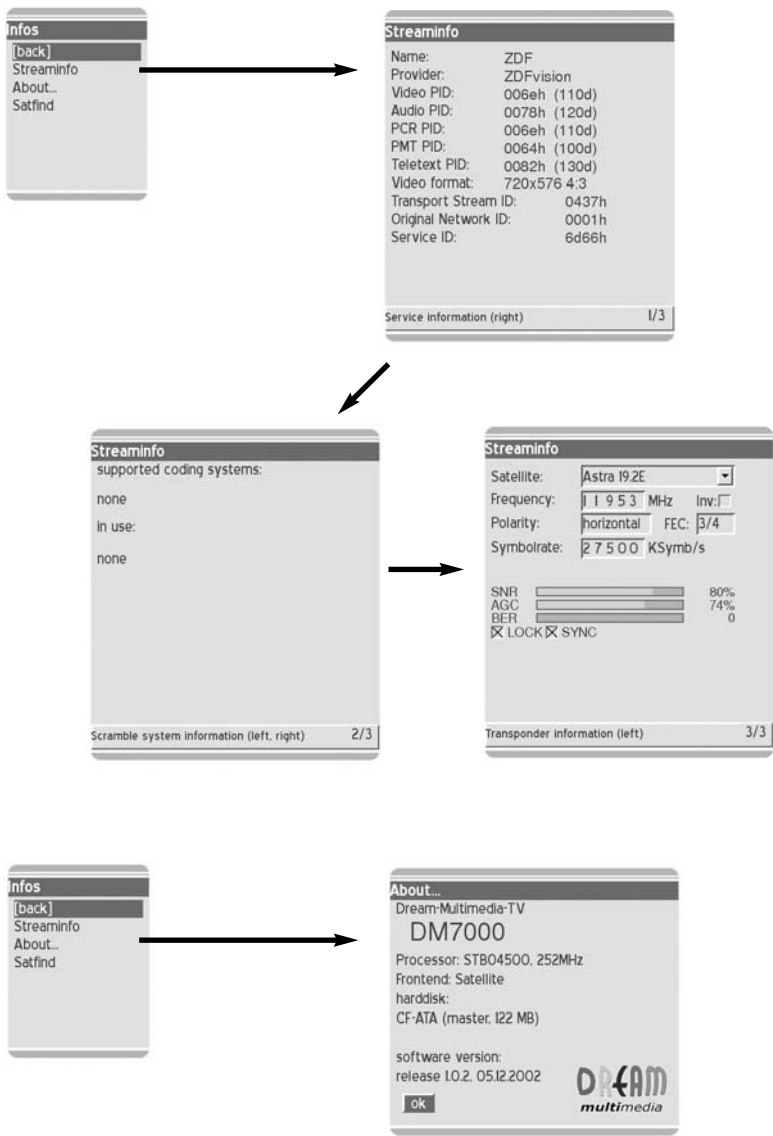


Switches to radio mode.

8. Main menu

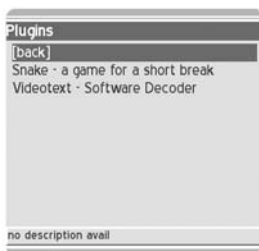
8.1 Info menu

With the direction keys on your remote control you can enter the following sub-menus:



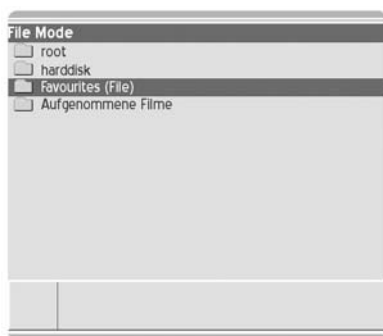
8.2 Games menu

In this menu, you can choose between the Snake and Tetris games, or call up the videotext decoder.



8.3 File menu

You can use this to manage the files on the hard disk.

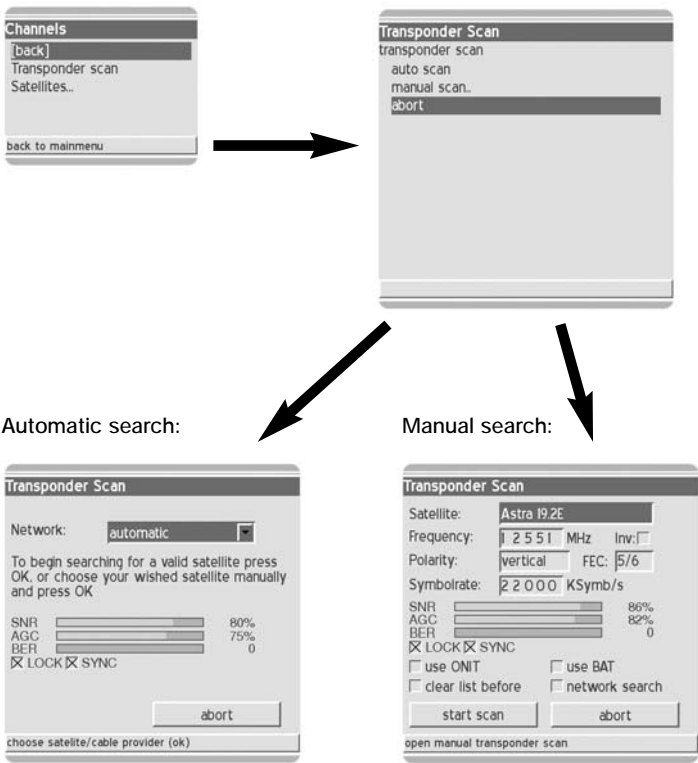


8.4 Set-up menu

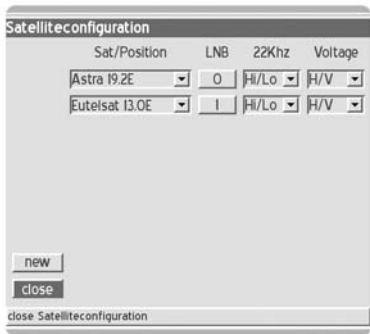
With the direction keys on your remote control you can enter the following sub-menus.



8.4.1 Channels – channel search



8.4.2 Channels - satellites



With this menu you can edit the satellites, or add one or more. Satellites are added with „New“. Editing is done in the respective selection. Leave this menu with „Close“.

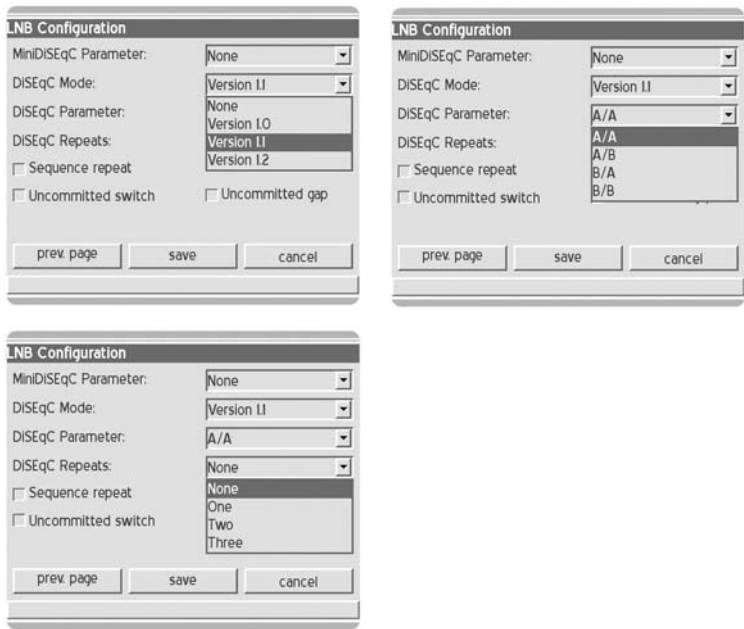
Under the „LNB“ item you can edit and add LNBs.

If you activate „increase voltage“, the voltage to the LNBs is increased by 0.5 volts. This is necessary for longer antenna connections, or for antenna cables with excessive attenuation.

After entering your set-up, store your settings with „Save“, or cancel.

8.4.3 Channels - Satellites - LNBs

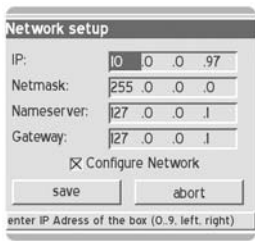
The following sub-menus provide individual adjustment of the LNBs / satellite systems, e.g. when a switch is used.



After entering your set-up, store your settings with „Save“, or cancel.

8.4.4 Network

Here you set up the configuration for your network.



IP: Enter the IP address of your Box here
(e.g. 192.168.0.5).

Network mask: (e.g. 255.255.255.0)

Name server: Enter a name server here

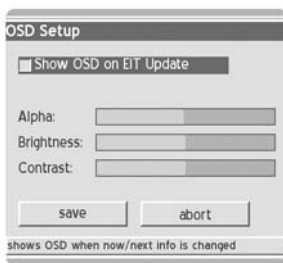
(e.g. 194.25.0.60, 194.25.0.68, 194.25.0.52 of Deutsche Telekom (http://www.telekom.de/dtag/ipl1/cda/level4s_a/0,3682,17684,00.html)).

Gateway: Enter the standard gateway here (e.g. 192.168.0.1)
(e.g. 192.168.0.1, the IP address of your router).

After entering your set-up, store your settings with „Save“, or cancel.

8.4.5 OSD

This allows you to configure the OSD (On Screen Display).



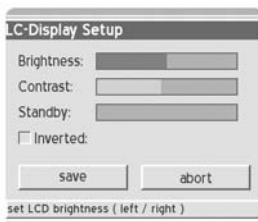
Transparency: Select the transparency of the OSD.

Brightness: Select the brightness of the OSD.

Contrast: Select the contrast of the OSD.

After entering your set-up, store your settings with „Save“, or cancel.

8.4.6 LCD



This allows you to set up the display of your Dreambox.

This allows you to adjust brightness, contrast and stand-by brightness.

After entering your set-up, store your settings with „Save“, or cancel.

8.4.7 Remote control

This allows you to configure your remote control.



You can adjust the repeat rate and the delay rate.

After entering your set-up, store your settings with „Save“, or cancel.

8.4.8 Video

This allows you to configure your video set-up.



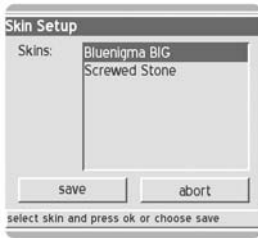
Colour format: Choose between RGB, SVideo and FBAS.

Aspect ratio: Choose between 4:3 letterbox, 4:3 panscan or 16:9 (PIN8).

After entering your set-up, store your settings with „Save“, or cancel.

8.4.9 Skin

This allows you to choose between different OSD skins.



Skins: Select your favourite skin here.

After entering your set-up, store your settings with „Save“, or cancel.

A new skin does not become active until you reboot!

8.4.10 Language

This allows you to choose the language for the OSD.



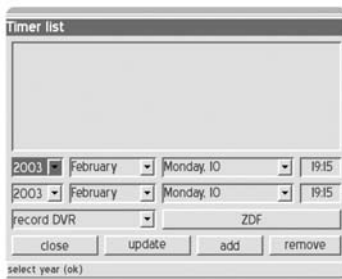
Language: select the language for the OSD.

After entering your set-up, store your settings with „Save“, or cancel.

A change of language does not become effective until you call up the menu again!

8.4.11 Timer

This allows you to set up your recording list.



Enter the channels manually with the record options, or edit your recording list. You can also delete recording options from the EPG list here with „remove“.

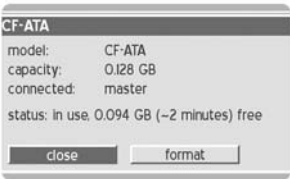
After entering your set-up, store your settings with „Save“, or cancel.

8.4.12 Hard disc

This allows you to configure your installed hard disc.



First select the hard disk found and press „OK“ to view information about the disk, or to re-format the disc.

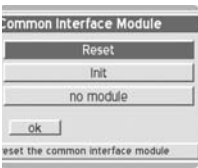


- Model:** the hard disk found.
- Capacity:** capacity of the hard disc connected.
- Connection:** port master or slave.
- Status:** remaining space available on the hard disc.

To configure a new hard disc or to delete all data from the disc, please select „Format“. Otherwise, select „Close“.

9. Common Interface

Here you can find the options for your Common Interface.

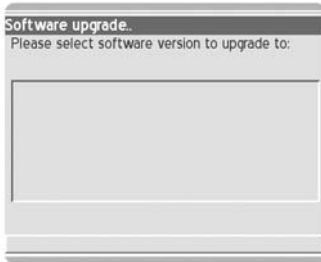


Reset: This allows you to reset the Common Interface.

Init: This allows you to re-initialise the Common Interface.

10. Upgrade

This provides the option to update the firmware of your Dreambox over the Internet.



This error message appears if you have not set the gateway and name server for the Internet in the network set-up (see 8.4.4 Network).

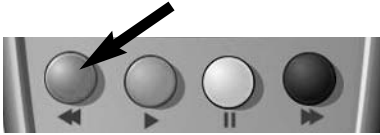
11. EPG (electronic program guide)

A screenshot of an 'EPG - ZDF' (Electronic Program Guide) window. It displays a list of television programs with their start times and titles. The programs are listed for Monday and Tuesday of the 10th of October.

EPG - ZDF		
Mon 10.02.	20:15	Trenck - Zwei Herzen gegen die Krone (2)
Mon 10.02.	21:50	heute-journal
Mon 10.02.	22:18	Wetter
Mon 10.02.	22:20	Mad City
Tue 11.02.	00:05	heute nacht
Tue 11.02.	00:20	Unversöhnliche Erinnerungen
Tue 11.02.	01:50	heute
Tue 11.02.	01:55	Vor 30 Jahren - Bildung zu erhöhten Preisen
Tue 11.02.	02:35	heute
Tue 11.02.	02:40	Streit um Drei
Tue 11.02.	03:30	heute
Tue 11.02.	03:35	WISO
Tue 11.02.	04:20	nightscreen
Tue 11.02.	04:40	PRAXIS täglich
Tue 11.02.	05:05	hallo Deutschland

11. EPG, 12. Infobar _____

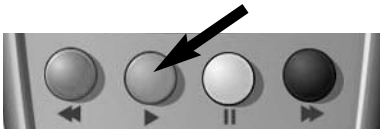
You can access the EPG lists with the red option button on your remote control.



You can then use the „OK“ key to see further information about the broadcast.



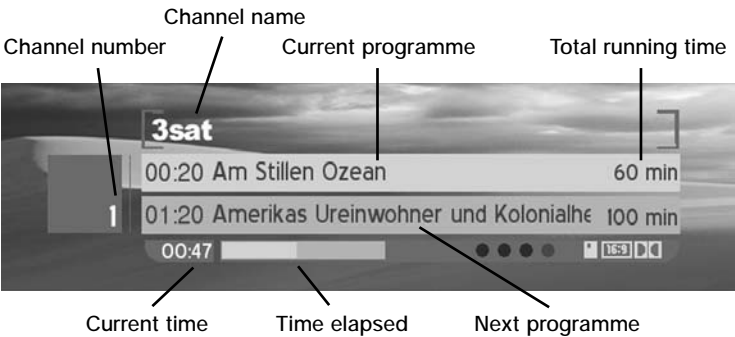
With the green option button, you can add the programme to your timer list. (see **8.4.11 Timer**)

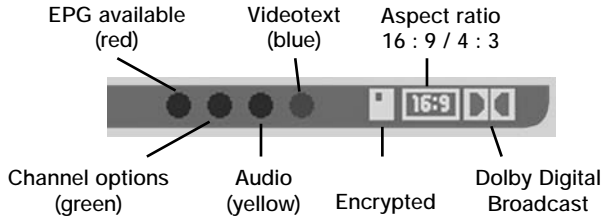


12. Infobar

The Info bar appears on change of programme, and shows the following data.

You can call up the Info bar at any time with the „OK“ key of your remote control.



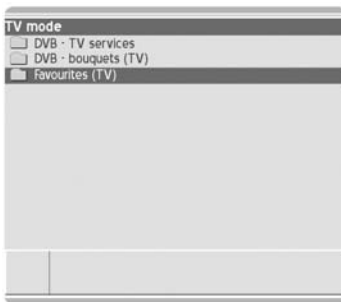


„**Encrypted**“ is highlighted in orange when the programme is being broadcast encrypted.

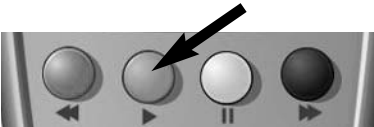
„**Aspect ratio**“ is highlighted in orange when the programme is being broadcast in 16:9 format. Otherwise it is in 4:3 format.

„**Dolby Digital Broadcast**“ is highlighted in orange when the programme is being broadcast in Dolby Digital.

13. Channel lists



In the channel lists you can use the green option button



to choose between different display formats of the Channel list:

- simple Channel list
- three-column Channel list
- Channel list with bouquet list

13. Channel lists



Here you can see a Channel list with a list of bouquets.

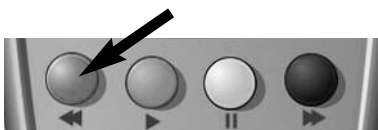
With the yellow option button on your remote control



you can switch between the left and right windows.



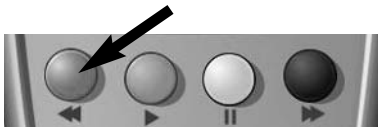
With the red option button on your Remote control you can access the service menu. Here you can add the channel to the favourites list or to the playlist.



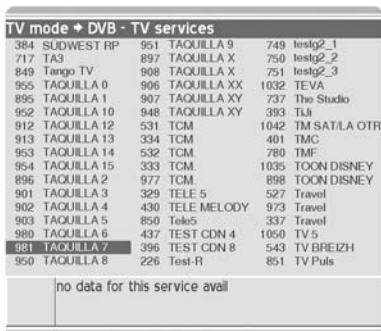
Here you see a single-column Channel list.



The blue option button takes you to the favourites menu.



Here you see a three-column Channel list.



14. Standby, Power down Dreambox and Reset, 15. HDD installation instr.

14. Standby, Power down Dreambox and Reset

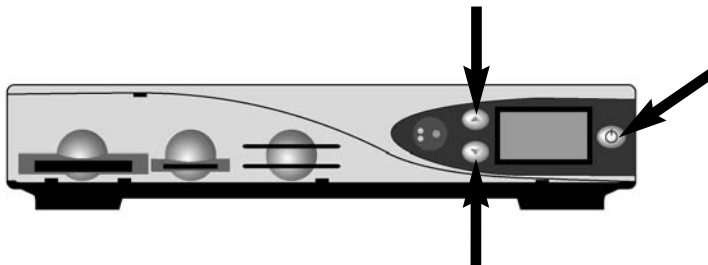
To put your Dreambox into standby mode, briefly press the power key at the top right of your remote control once.



To put your Dreambox into deep standby, go to the main menu, select the "power down" option, and confirm this with the „OK" key.

All settings are now stored and the Box goes into deep standby, or press the power key on the remote control for 5 seconds.

For a reset, press all 3 buttons on the Dreambox at the same time.



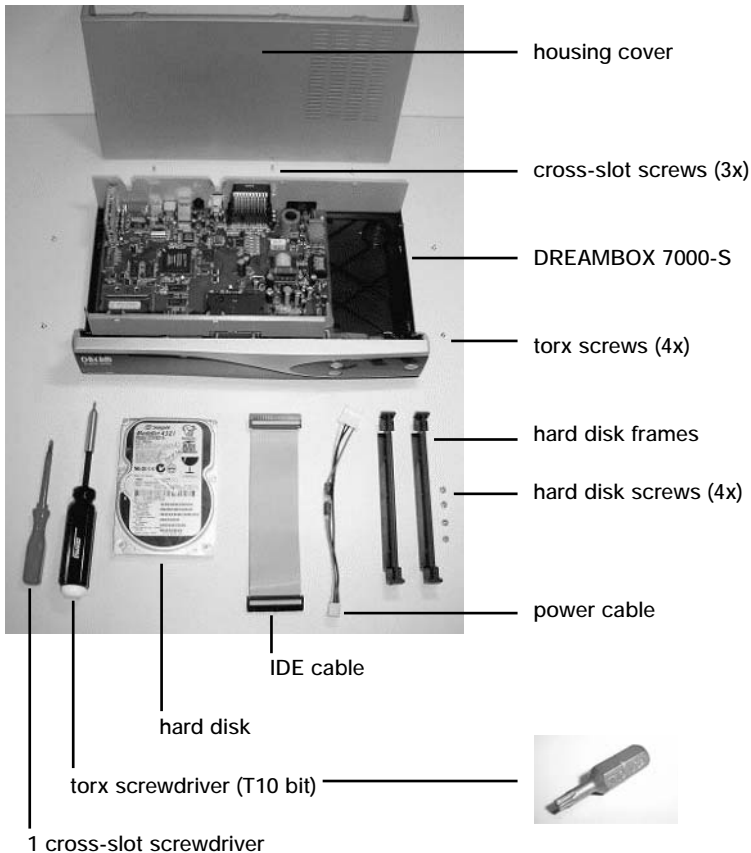
15. Hard disk installation instructions

This section describes how to install a hard disk into your Dreambox 7000.

Please be sure during this process to observe the procedures for ESD in working with electronic equipment. Make sure that you are earthed. Do not unscrew the unit in your living room or in other rooms with carpet or other floor coverings which take on an electrostatic charge. All connection cables should be disconnected from the unit. Open the unit only with the tools described here. Avoid physical contact with the components on the main circuit board. If too many questions arise, ask your nearest dealer or television technician for assistance.

Please observe the guarantee notices on page 8 of this Manual.

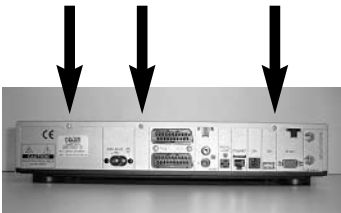
This picture shows the items you need for installation of the hard disk.



Parts list

- 1 Dreambox (includes the housing cover, 4 torx screws (left, right), 3 cross-slot screws (rear))
- 1 cross-slot screwdriver
- 1 torx screwdriver (T10 bit)
- 1 hard disk (see hard disks tested at www.dream-multimedia-tv.de)
- 1 IDE cable
- 1 power cable
- 2 hard disk frames (provided in the Dreambox, from works)
- 4 hard disk screws of your choice

15. Hard disk installation instructions _____



With the cross-slot screwdriver, unscrew the three cross-slot screws on the rear of the unit.



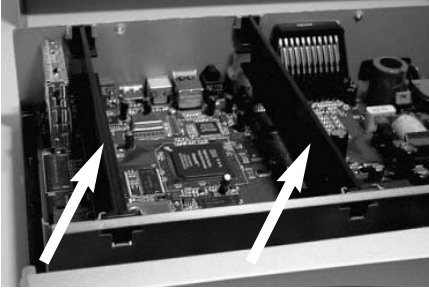
With the torx screwdriver, unscrew the two torx screws on the right-hand side of the unit.



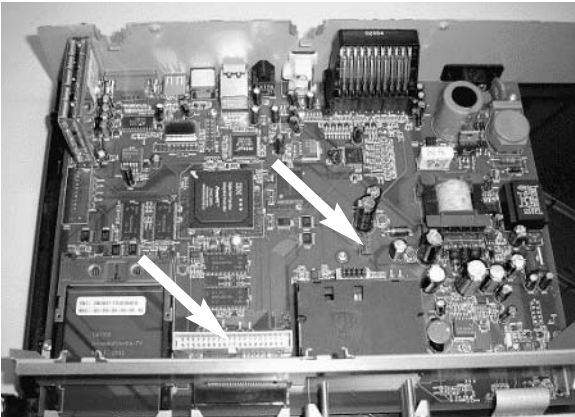
With the torx screwdriver, unscrew the two torx screws on the left-hand side of the unit.



Draw the case covering away from the unit towards the rear.



Remove the hard disk frames, extracting them upwards.



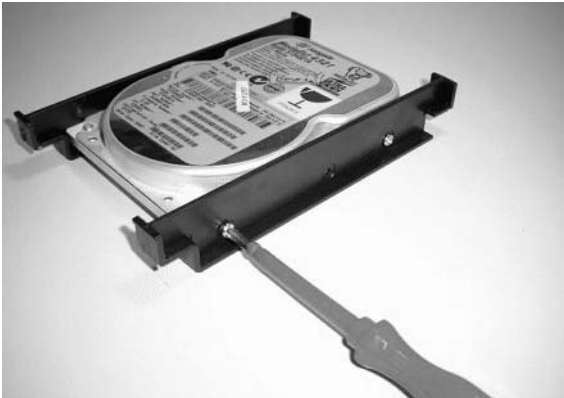
Here you see the Dreambox with the hard disk frames removed. The connections for the IDE cable and the power cable of the hard disk can be recognised.



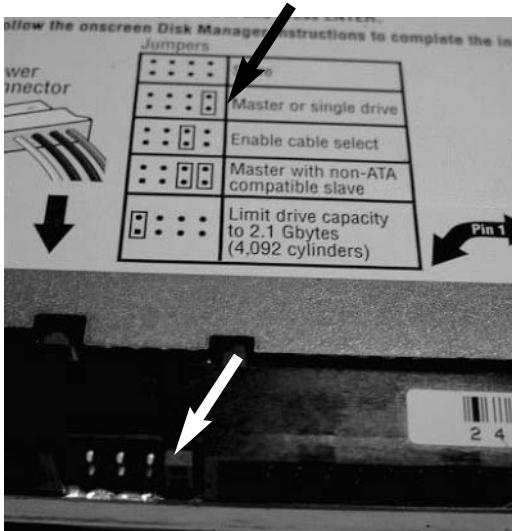
Attach the IDE cable and the power cable to your hard disk. Alternatively, you can do this after you have mounted the hard disk frames.

15. Hard disk installation instructions ---

You now need the cross-slot screwdriver, the hard disk frames, your hard disk, and the four screws of your choice.

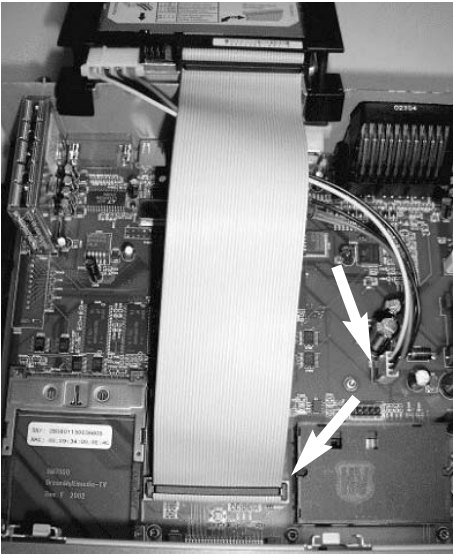


Fasten the hard disk frames to your hard disk.



Set the hard disk by jumper to master operation.

Please consult the Instruction Manual of your hard disk for information on how to set the hard disk for master operation.



Attach the IDE cable and the power cable to your Dreambox.

15. Hard disk installation instructions



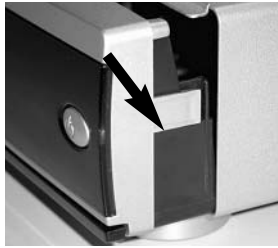
Insert the hard disk into the slot in the housing frame provided for the purpose, and lead the IDE cable and the power cable through below the hard disk.



Take care to lead the cable as close as possible to the hard disk.



Slide the case covering again from the rear over the unit.



Pay attention to the small plastic clips on the front panel when you slide the case covering onto it. The plastic clips must not remain exposed.

Screw the case covering fast again with the four torx screws (left and right) and the three cross-slot screws (rear of case).

Attach the cables you need to your Dreambox. Attach the power cable last.

Format the hard disk from the OSD menu.

16. DreamUp – operating software update

16. DreamUp – operating software update

You can obtain the DreamUp software and the operating software from www.dm7000.de.

!!! Please study these instructions thoroughly before you begin !!!

In order to connect the Dreambox with your computer, you need a PC with a network card and a serial interface (COM1 or COM2), and a crossover patch cable and a null modem cable. Alternatively, you can connect the PC with the Dreambox, without a crossover patch cable, with a normal patch cable via your router, hub or switch. If you do not have a patch cable, you can also connect to the Dreambox with just a serial cable (uploads and downloads take longer). In these instructions, we assume that create a connection with the Dreambox over both interfaces, serial and Ethernet. If many questions arise, ask your dealer for assistance, or contact our technical hotline at www.dream-multimedia-tv.de.

**Please remove all cables from your Dreambox.
Plug only the serial cable and the patch cable into
your Dreambox.**

The power cable is unplugged.

How to find out the IP address of your computer under Windows (W98, W2K, XP):

Click on Start -> Run -> type in the command „Command“ -> press return.

A DOS command window will open, Type in the command „ipconfig/all“ and press return. The IP address of your computer will then be displayed.

```
Ethernetadapter "LAN-Verbindung":  
Verbindungsspezifisches DNS-Suffix: 3Com EtherLink 10/100 PCI TX NIC <3C905B-TX>  
Beschreibung. . . . . : 3Com EtherLink 10/100 PCI TX NIC <3C905B-TX>  
Physische Adresse. . . . . : 00:00:00:00:00:00  
DHCP-aktiviert. . . . . : Nein  
IP-Adresse. . . . . : 10.0.0.2  
Subnetzmaske. . . . . : 255.0.0.0  
Standardgateway. . . . . :  
DNS-Server. . . . . :  
Primärer WINS-Server. . . . . :
```

Note down the IP address and the subnet mask (can't do any harm).

16.1 DreamUp – preparing the software

Start the DreamUp software on your computer.

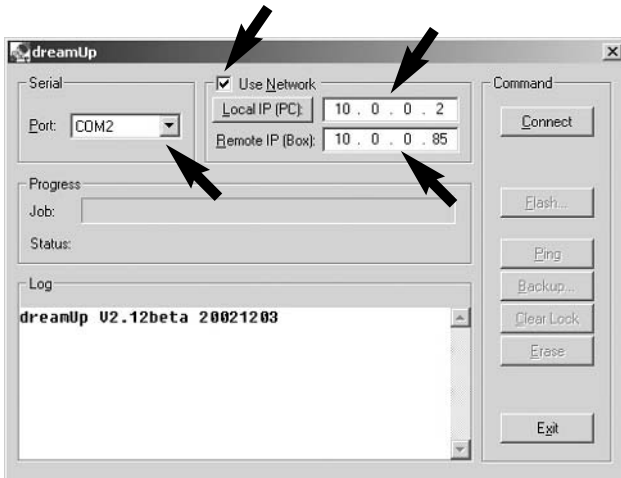
Select the COM interface which you have connected with your Dreambox.

Make sure that the checkbox "Use Network" is checked.

Enter the IP address of your computer that you noted down to the right of „Local IP (PC)".

To the right of „Remote IP (Box)" enter, for example, 10.0.0.85.
This IP address is assigned to your Dreambox by the software.

Make sure that this IP address is not allocated in your home network, unless you are working with a crossover patch cable.

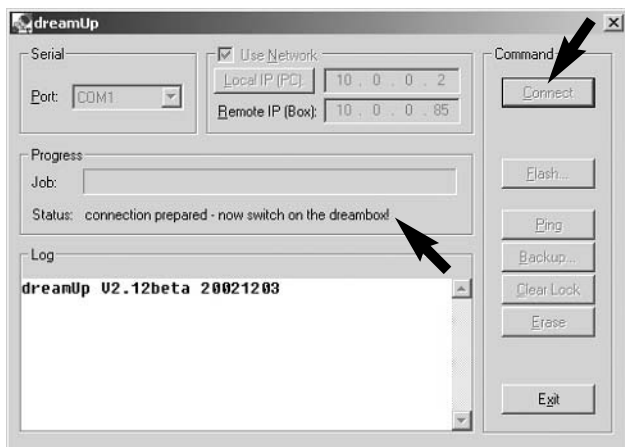


You have now configured the software to your needs.

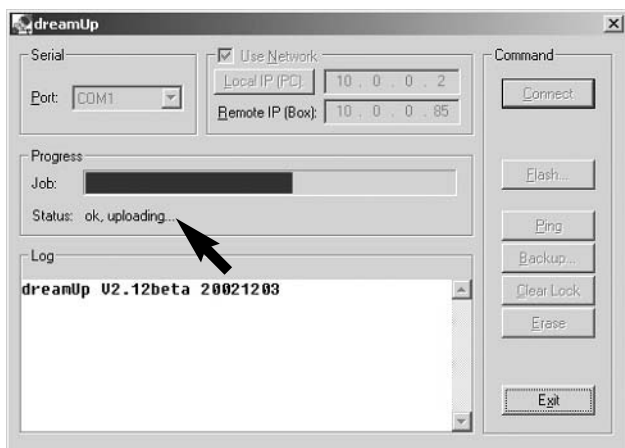
16. DreamUp – operating software update

16.2 DreamUp – establish connection

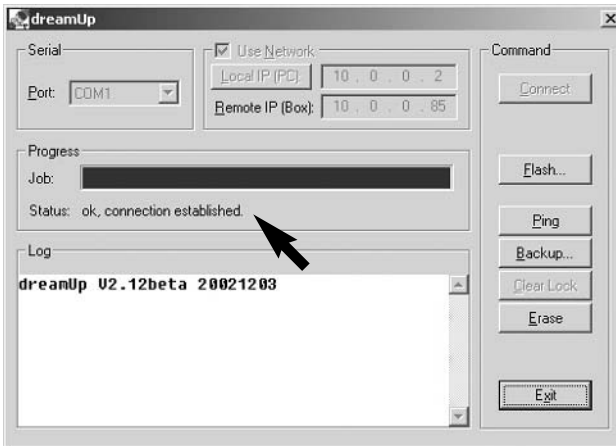
Now click on „Connect“.



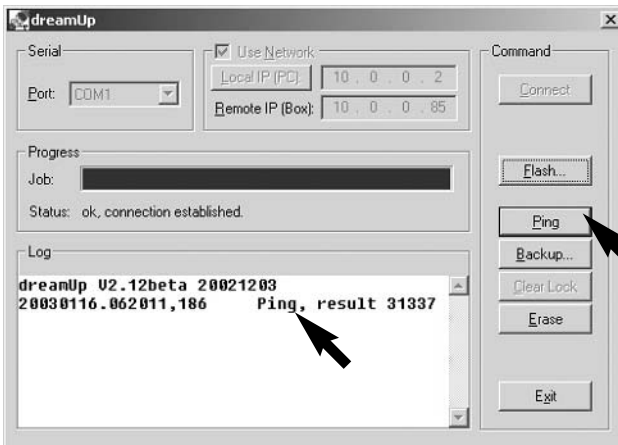
The software informs you with a status message that it is prepared for a connection. Only now should you plug the power cable into your Dreambox.



When you have supplied power to your Dreambox, the software prepares everything necessary for flashing your Dreambox. Observe the status.



This is how it looks when the software has established the connection with your Dreambox.

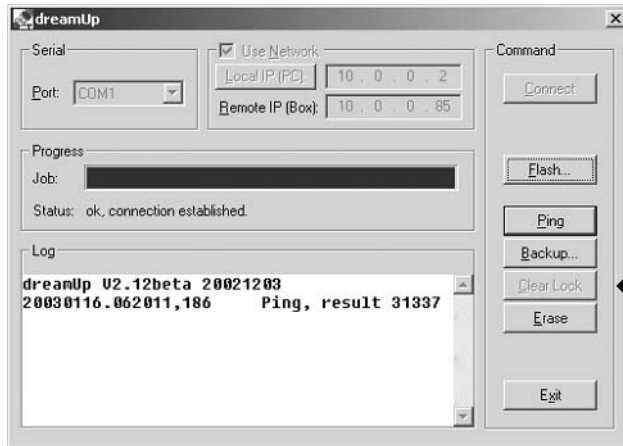


Check whether the Ethernet connection is working by clicking on „Ping“.

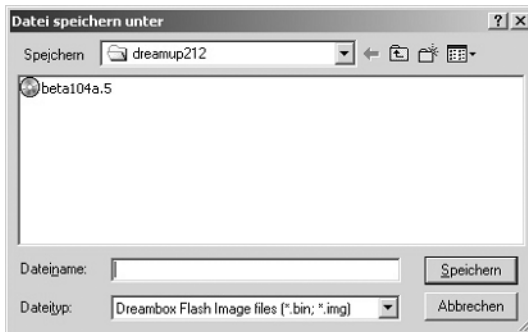
If a connection exists, a result appears. If this is not the case, check the patch cable and your network configuration.

16.3 DreamUp – backup funktion

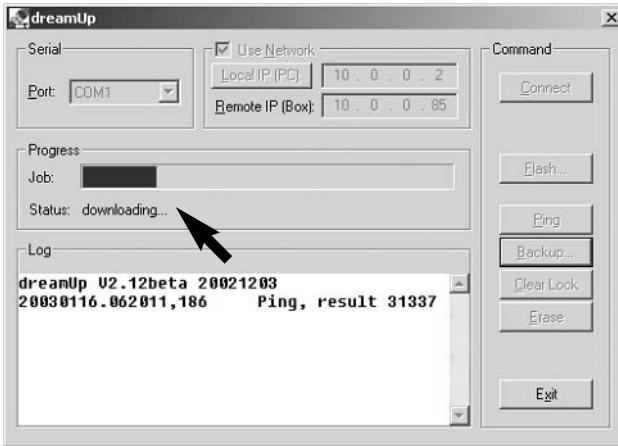
You can store the existing operating software together with the set-up of your Dreambox, by clicking on „Backup“.



After the click, the following window opens. This allows you to select a file name for the image you are going to save, and store it.



After you have clicked on „Save“, the operating software is backed up. Observe the status.



When the backup is complete, you will receive a message from the software, as follows.

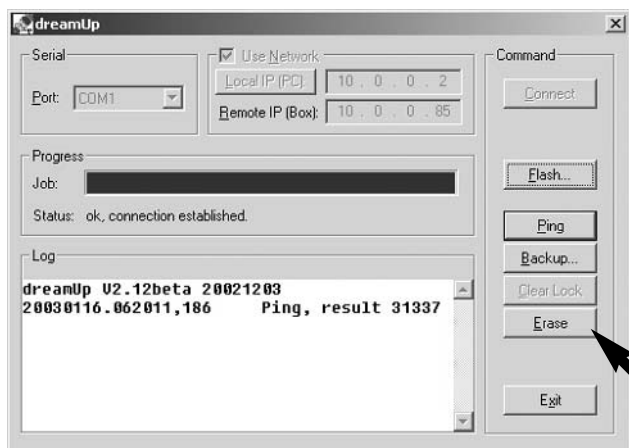


Acknowledge this message by clicking „OK“.

16. DreamUp – operating software update

16.4 DreamUp – delete operating software

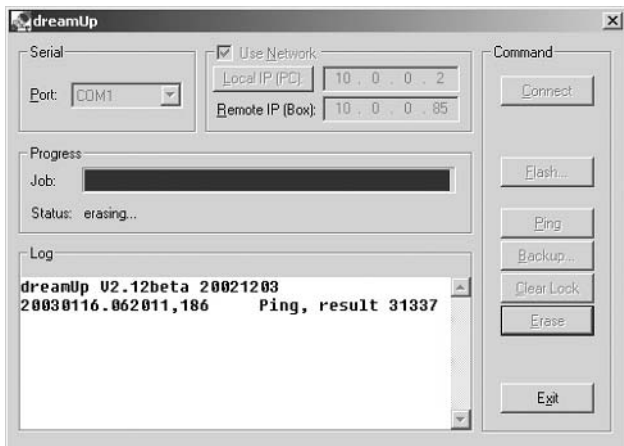
Click on „Erase“ to delete the existing operating software (image).
(This is no MUST)



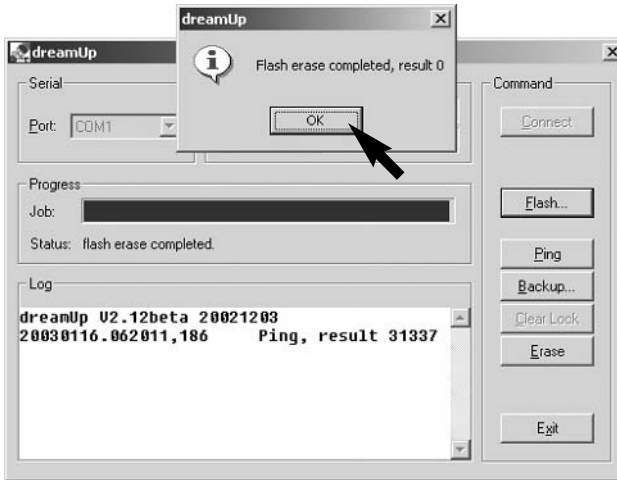
A request for confirmation will appear, which you answer with a click on „Yes“.



Observe the status.

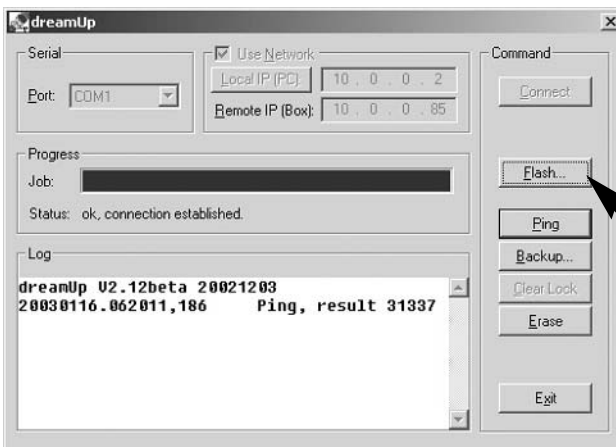


Here you see the message that the erase has been successfully completed.

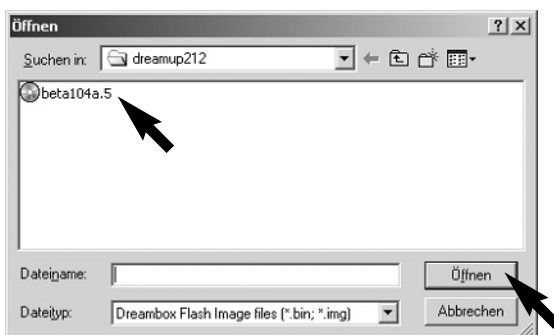


Click on „OK“.

16.5 DreamUp – flash operating software

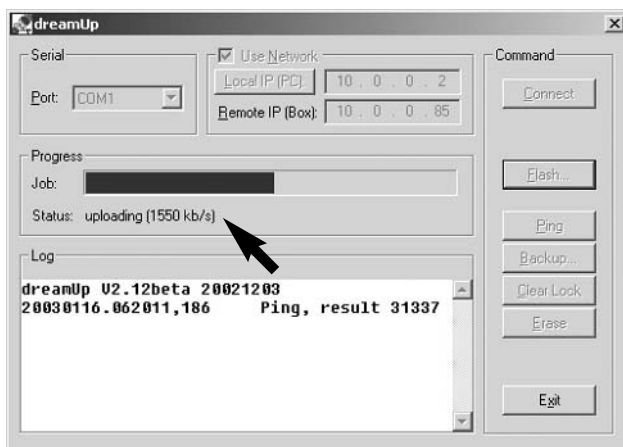


Click on „Flash“. You will now be asked for the operating software (image) which you want to record.

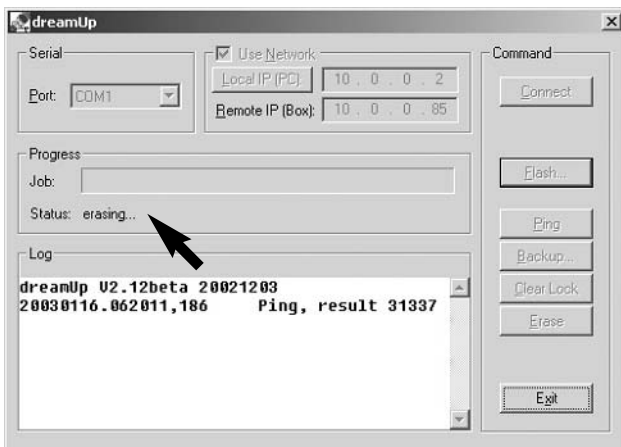


Select your image and click on „Open“.

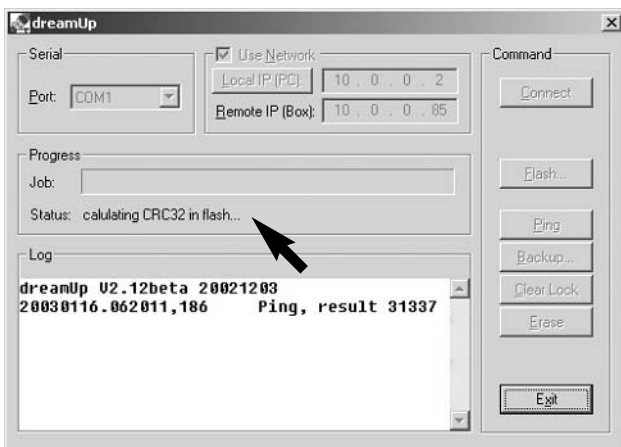
The operating software will then be uploaded to your Dreambox.
Observe the status.



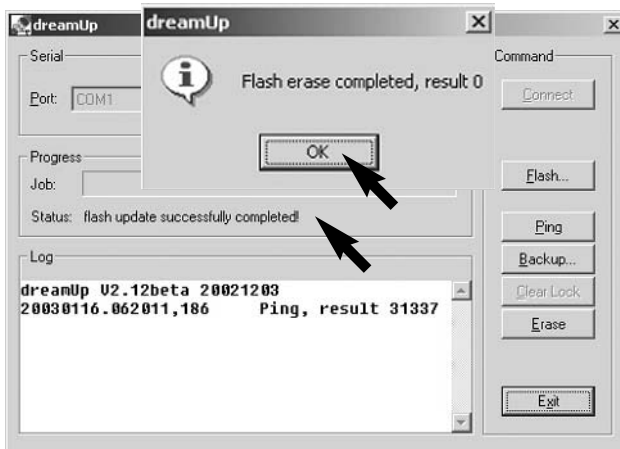
When the upload is complete, the flash of your Dreambox will be erased.
Observe the status.



The uploaded image will be checked.
Observe the status.



After the flashing is complete, you will receive a message from the software that everything has been completed successfully. Click on „OK“.



16.6 Reset Dreambox to factory settings

Your Dreambox is now updated with the selected operating software.

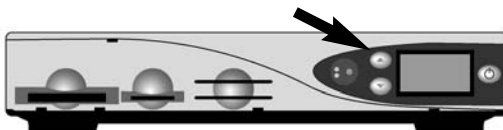
Close the program by clicking on „Exit“.

Remove the power cable, the patch cable and the serial cable from your Dreambox.

Wait 20 seconds.

Plug the TV Scart plug and the coaxial cable (satellite system) into your Dreambox. Plug the power cable into your Dreambox.

As soon as the Dream logo appears on your TV, press and hold down the upper left key on your Dreambox, and do not release it until „flash erase“ appears in the display of your Dreambox.



Your Dreambox then resets itself, and returns to the TV broadcaster „ARD“.

17. Set-up TV control

A four-digit TV device code is selected from the TV model list in the table in Chapter 18 and entered.

TV mode -> <<Set-up>> -> number -> number -> number -> number

Shift-/Setup-Funktion

TV-Steuerung

Zehnertastatur

**4.1 Programming sequence**

1. Briefly press the TV key once.
2. Press SHIFT/setup key for 3 seconds the TV key should blink twice.
3. Enter the TV code with the numeric keypad on the remote control.
Each number input is acknowledged by the TV key blinking once.

After the fourth digit has been input, a valid code is acknowledged by the TV key blinking twice.

4. The remote control then automatically leaves programming mode.
5. If no code is input for 10 seconds, the remote control automatically leaves programming mode.

18. TV model list

A.R. Systems	0067 0382
Accent	0067
Admiral	0117 0123 0448 0243 0294
Adyson	0247 0246
Agashi	0246
Agazi	0294
AGB	0546
Agef	0117
Aiko	0246 0039 0067 0401 0065 0463 0102 0391 0221 0294 0247
Aim	0067
Akai	0391 0238 0401 0067 0463 0221 0065 0039 0102 0248 0193 0546 0586 0578 0510 0247 0661 0246 0294
Akiba	0248 0312 0485 0067
Akura	0248 0389 0312 0039 0442 0294 0067
Alba	0248 0265 0039 0448 0400 0385 0401 0067 0246 0277 0193 0517 0066 0698 0609
Alcyon	0106
Allorgan	0236 0324 0247
Allstar	0067
Amplivision	0247 0430 0350 0400
Amstrad	0039 0546 0294 0248 0401 0463 0442 0067
Anglo	0039 0294
Anitech	0039 0106 0294 0067
Ansonic	0400 0132 0039 0067 0404 0193 0353 0441 0289 0277 0042 0458
Apollo	0503
Arc en Ciel	0429 0531 0139 0226 0363 0228
Arcam	0246 0429 0247
Aristona	0067 0586 0042
Arthur Martin	0193 0430
ASA	0135 0376 0100 0134 0117
Asberg	0067 0106
Asora	0039
Asuka	0248 0294 0246 0312 0247
Atlantic	0067 0246 0236 0289 0350
Atori	0039
Auchan	0193 0430
Audiosonic	0067 0139 0247 0400 0367 0294 0248 0458
Audioton	0247 0400 0294
Ausind	0106
Autovox	0117 0236 0267 0106 0379 0247 0277 0366
Awa	0041 0066 0039 0187 0404 0442 0067
Ayomi	0268
Baird	0139 0373 0102 0247 0238
Barco	0410 0193
Basic Line	0248 0039 0404 0067 0597 0193 0312
Bastide	0247
Baur	0333 0225 0542 0067 0221 0391 0379 0535 0040
Bazin	0247
Beko	0400 0067
Beon	0067 0448
Best	0367 0400
Bestar	0067 0400 0404
Binatone	0247
Black Star	0277
Blacktron	0312
Blackway	0312
Blaupunkt	0221 0225 0230 0243 0357 0358 0348
Blue Sky	0248 0312 0485 0067 0517 0698
Blue Star	0312
Bondstec	0277
Boots	0247
BPL	0312 0067
Brandt	0531 0139 0429 0235 0267 0363 0226 0228 0317 0365
Brinkmann	0448 0067 0549
Brionvega	0067 0117
Britannia	0246 0247
Brother	0294
Bruns	0117
BSR	0193 0324

BTC	0248
Bush	0248 0265 0193 0379 0039 0066 0312 0067 0385 0401 0404 0549 0294 0391 0517 0238 0324 0247 0698
Capsonic	0294
Carad	0640 0067
Carena	0485 0067
Carrefour	0066 0100
Cascade	0039 0067
Cathay	0067
CCE	0067
Centurion	0067
Century	0117 0243 0277 0268
CGE	0104 0114 0336 0106 0277 0193 0448 0400
Cimline	0039 0265 0248
City	0039
Clarivox	0448 0100
Clatronic	0248 0294 0400 0401 0247 0106 0277 0067 0039 0132 0350 0609
Clayton	0415
CMS Hightec	0247
Concorde	0039
Condor	0246 0277 0312 0350 0067 0400 0039 0132 0441 0448
Contec	0246 0039 0187 0041 0066
Continental Edison	0531 0139 0267 0226 0228 0429 0363 0235 0317 0517
Cosmel	0039 0367
Crezar	0243
Crosley	0117 0277 0104 0114 0106 0193 0243
Crown	0039 0400 0106 0067 0389 0609 0448 0238 0517
CS Electronics	0277 0246 0248
CTC	0277
Cybertron	0248
Daewoo	0039 0067 0246 0404 0248 0247
Dainichi	0248 0246
Dansai	0067 0294 0065 0246
Dansette	0442
Dantax	0400
Datsura	0238
Dawa	0067
Daytron	0039 0404 0067
Decca	0102 0546 0067 0247
Deitron	0067
Denko	0294
Desmet	0350 0067
Diamant	0067
Digiline	0067
Dixi	0039 0067 0277 0247
Domland	0424
Drean	0067
DTS	0039
Dual	0379 0247 0373 0289 0366 0549 0067 0382 0424 0429 0333
Dumont	0117 0134 0132 0243 0247 0100 0102
Dux	0067 0042
Dynatron	0067
Elbe	0465 0268 0289 0400 0193 0067 0248 0221 0441 0640
Elcit	0117 0277 0546 0132 0193
Elekta	0294 0312
Elin	0246 0067 0135 0134 0578 0391 0379 0193 0039
Elite	0248 0067
Elman	0132
Elta	0039 0294
Emerson	0243 0117 0277 0067 0401 0100 0312 0350
Emperor	0312
Erres	0067 0042
Etron	0067 0039 0193
Euro-Feel	0294
Europa	0067
Europhon	0067 0546 0132 0243 0247 0277 0193
Expert	0236 0430 0289 0193
Exquisit	0067 0277

18. TV model list

Fenner	0404 0039
Ferguson	0317 0365 0268 0139 0590 0655
Fidelity	0246 0401 0193 0294 0067
Filsai	0247
Finlandia	0238 0376 0389 0578 0391
Finlux	0135 0134 0067 0376 0247 0102 0193 0106 0546 0100 0117
	0132 0441 0661 0522
Firstline	0324 0351 0246 0067 0404 0415 0277 0039 0193 0132 0247
	0441 0379 0561 0268 0102 0265 0698 0238
Fisher	0134 0247 0066 0238 0400 0585 0117 0187 0391 0193 0333
	0379 0102
Flint	0067 0485 0102 0248
FNR	0132
Formenti	0117 0243 0246 0350 0193 0106
Fortress	0123 0117
Fraba	0400 0067
Friac	0039 0067 0132
Frontech	0277 0294 0379 0247 0039
Fujitsu	0236 0102 0132 0247 0193
Fujitsu General	0039
Funai	0294 0324
Galaxi	0132 0067
Galaxis	0400 0448 0067 0132
GBC	0243 0193 0039 0404 0248
GE	0590 0139 0317 0365 0373
Geant Casino	0193 0430
GEC	0102 0193 0391 0235 0546 0067 0247 0379
Geloso	0243 0277 0039 0193 0404
General	0139 0317 0501
General Technic	0039
Genexxa	0248 0067 0442
Germanvox	0243
Goldhand	0246
Goldline	0367
GoldStar	0067 0400 0039 0247 0277 0246 0193 0391
Goodmans	0066 0102 0067 0039 0294 0546 0404 0517 0401 0586 0373
	0265 0065 0510 0590 0247 0365
Gorenje	0400
GPM	0248
Gradiente	0067 0083
Graetz	0391
Granada	0067 0430 0256 0389 0042 0102 0138 0238 0247 0106 0066
	0546 0503 0365 0590
Grandin	0312 0248 0430 0067 0039 0350 193 0485 0609 0640
Gronic	0247 0132
Grundig	0225 0221 0517 0100 0106 0235 0267 0067 0586
Halifax	0294 0246 0247
Hampton	0246 0247
Hanimex	0324
Hanseatic	0067 0312 0379 0193 0391 0424 0243 0350 0458 0400 0039
	0324 0247 0549
Hantarex	0039 0243 0067 0132
Hantor	0067
Harwood	0039 0442 0067
HCM	0294 0039 0312 0442 0247 0248 0448 0067
Hema	0247 0039
Hemmermann	379
Hifivox	0531 0139 0226 0429
Hikona	0248
HiLine	0294 0067
Hinari	0238 0066 0067 0248 0039 0193 385 0473 0517 0265 0324
Hisawa	0312 0248 0430 0485
Hit	117
Hitachi	0255 0066 0379 0503 0193 0373 0226 0228 0247 033 0224
	0546 0102 0067 0135 0586 0180 0578
Hitsu	039 0485 0248
Hornyphone	0067 0042
Hoshai	0248 0485
Huanyu	0404 0246
Hygashi	0247 0246

Hyper	0039 0246 0247 0277
Hypersonic	0391
Hypson	0067 0294 0247 0312 0485 0430 268
Iberia	067
ICE	294 0247 0067 0401 0248 0246 039
ices	248 0246
Imperial	0067 0277 0400 0448 0193 0561 104 0114 0106 0379 0226
Indesit	267 0243
Indiana	0067
Ingelen	0517 0640
Inno Hit	0039 0102 0067 0248 0247 0106 546 0277
Innovation	0549
Interactive	0441
Interbuy	0039 0294 0277
Interfunk	0067 0042 0117 0542 0357 0193 391 0400 0531 0139
Internal	0067
Intervision	0312 0247 0485 0067 0401 0549 400 0424 0517 0248 0132 193 0294 0277
Irradio	039 0067 0248 0277 0106
Isukai	248 0067 0312
ITC	247
ITS	067 0401 0248 0312 0294 0246
ITT	193 0510 0379 0391 0503 0578 597 0376 0238
ITV	294 0067 0277
Jea	066
JEC	065
JVC	0683 0083 0066 0401 0248
Kaisui	0248 0312 0067 0246 0485 0247 039
Kamp	0246
Kapsch	0236 0193 0391 0289 0134
Karcher	0067 0400 0312 0132 0640 0294
KB Aristocrat	0193
Kendo	0265 0277 0132 0067 0458 0400 441 0640
Kennedy	0236 0243 0193 0465
Kingsley	0246
Kneissel	0465 0289 0400 0268 0067 0441 640
Kolster	0067
Konka	0248 0401 0067
Kontakt	0517
Korpel	0067
Korting	0117 0400 0350
Kosmos	0067
Kotron	0442 0294
Kraking	0268
Kyoshu	0294 0442
Kyoto	0415 0193
Lemair	0441
Lenco	0039 0134 0193 0067
Lenoir	0039
Lesä	277
Leyco	0294 0102 0067 0324 0609
LG	067 0400 0039 0247 0277 0246 193 0391
Liesenkotter	0067 0357 0358
Lifetec	0039 0294 0549 0067 0404 0248 698
Lloyd's	0039
Loewe	0542 0067 0117 0400
Logik	0041 0401
Logix	0698
Luma	0236 0067 0193 0289 0441 0404 039
Lumatron	0236 0067 0193 0289 0391 0247 0294
Lux May	0067 0039
Luxor	0224 0267 0510 0522 0379 0391 238 0578 0193 0376
Madison	0067
Magnadyne	0117 0277 0546 0132 0193
Magnafon	0546 0243 0106 0132 0246
Mandor	0294
Manesth	0067 0265 0247 0294 0350 0065 324
Manhattan	0067
Marantz	0067
Marelli	0117

18. TV model list

Mark	0067 0247 0246 0404 0039
Masuda	0248
Matsui	0265 0039 0385 0041 0102 0066 067 0586 0517 0247 0324 401 0463 0473 0609 0485 379 0546 0065 0193 0238 225 0221 0365
Mediator	0067 0586 0042
Medion	0067 0698 0549
Megas	0640
Melvox	0430
Memorex	0039
Memphis	0367 0102 0039 0415
Mercury	0067 0039
Metz	0117 0225 0243 0221 0397
Micromaxx	0067 0698
Minerva	0517 0225 0100 0106 0221 0267
Minoka	0442 0067 0389
Mitsubishi	0138 0180 0542 0067 0117 0066 267
Mivar	0400 0106 0246
Monaco	0039
Motion	0106
MTC	0400 0379 0542
Multistandard	0132
Multitec	0067 0698
Multitech	0247 0379 0039 0246 0277 0132 400 0067
Murphy	0134 0246 0102 0193
NAD	0391
Naiko	0067
Nakimura	0404 0067
National	0267 0244 0256
NEC	0066 0350 0485 0039 0404 0247 0067
Neckermann	0067 0221 0400 0535 0040 0230 0586 0193 0357 0448 0379 0117 0243 0277 0247 0441
NEI	0067 0367 0401
Nesco	0277
Network	0367
Neufunk	0067 0039 0586 0640
New Tech	0067 0039 0586 0373 0247
New World	0248
Nicamagic	0246
Nikkai	0102 0248 0067 0247 0294 0065 0367 0246 0039 0066
Noblex	0067 0294
Noblisko	0132 0106 0100 0246
Nogamatic	0429 0531 0139 0226
Nokia	0391 0193 0510 0379 0578 0522 0389 0503 0238 0404 0661 0376
Nordmende	0139 0531 0317 0429 0226 0373 0228 0243 0605 0590 0225 0067 0365
Novatron	0067 0135
Oceanic	0597 0193 0430 0391 0324 0238
Okano	0400 0067 0294 0102
Omega	0294
Onwa	0401 0248 0463
Opera	0067
Orbit	0067
Orion	0265 0324 0350 0385 0041 0067 0039 0351 0132 0473 0586 0685 0294 0442
Online	0067 0248
Ormond	0415 0698
Osaki	0102 0248 0247 0294 0067 0442 0404
Osio	0067
Oso	0248
Osume	0187 0102 0066 0248
Otto Versand	0040 0535 0066 0123 0542 0067 0586 0225 0379 0221 0391 0265 0139 0243 0324 0256 0277 0333 0350 0247
Pael	0246
Palladium	0400 0067 0221 0535 0040 0230 0448 0586 0277 0357 0379 0117 0193 0243 0247 0441 0685
Palsonic	0294 0442 0067
Panama	0039 0247 0294 0246 0067 0277

Panasonic	0256 0680 0280 0244 0243 0391 0267 0397 0546 0067 0193 0578
Panavision	0067 0441
Pathe Cinema	0193 0268 0246 0430 0350 0379
Pathe Marconi	0235 0243 0531 0139 0226 0228 0363 0429 0267
Pausa	0039
Perdio	0102 0350 0193 0067
Perfekt	0067
Pershin	0430
Philco	0117 0114 0104 0448 0106 0243 0277 0193 0400 0067
Philharmonic	0247
Philips	0586 0067 0042 0353 0221 0117 0373
Phoenix	0067 0117 0350 0400 0415 0246 0193 0102
Phonola	0067 0586 0042 0117 0246
Pioneer	0067 0458 0400 0373 0391 0139
Pionier	0400
Plantron	0067 0294 0039
Playsonic	0247
Poppy	0039
Portland	0404
Prandoni-Prince	0277 0546 0391 0243 0106
Precision	0247
Prima	0039 0294
Prinz	0102 0379 0224
Profex	0039 0193
Proline	0351 0102 0067 0042 0655
Prosonic	0067 0244 0246 0400 0404 0609 0401
Protech	0067 0247 0039 0277 0379 0132 0294 0448 0367 0698
Provision	0067
Pye	0067 0586 0042 0117
Pymi	0039
Quadra Vision	0430
Quasar	0277
Quelle	0067 0040 0041 0531 0139 0542 0379 0221 0391 0066 0247 0277 0104 0114 0357 0336 0100 0134 0135 0187 0225 0230 0243 0294 0698
Questa	0066
R-Line	0067
Radialva	0139 0248 0193 0067
Radiola	0067 0586 0042 0353
Radiomarelli	0117 0546 0277 0067
RadioShack	0067
Radiotone	0039 0067 0458 0400 0609 0448 0294 0442
Rank	0100
RCA	0590 0655 0365
Recor	0067
Rediffusion	0391 0578 0066
Redstar	0067
Reflex	0067
Revox	0067 0400
Rex	0236 0441 0277 0193 0289
RFT	0117 0400 0458 0102 0294
Roadstar	0039 0294 0248 0448
Robotron	0117
Royal Lux	0400 0442
Saba	0317 0243 0117 0429 0193 0139 0531 0546 0373 0391 0528 0226 0228 0365 0235 0655 0578
Sagem	0485 0640 0312
Saisho	0265 0546 0039 0041 0247 0193 0294
Salora	0224 0379 0193 0389 0391 0546 0578
Sambers	0243 0546 0106 0132
Samsung	0067 0586 0617 0039 0247 0400 0294 0246 0102 0238
Sandra	0246 0247
Sanela	0268
Sansui	0067 0401
Sanyo	0238 0187 0066 0041 0400 0102 0246 0247 0134 0243 0039 0193 0067 0585
Save	0067
SBR	0067 0586 0042

18. TV model list

Schaub Lorenz	0379 0578
Schneider	0067 0586 0042 0333 0379 0549 0424 0382 0366 0289 0353
SEG	0373 0247 0277 0401 0248 0391 0193 0698
SEI	0247 0294 0039 0277 0066 0132 0193 0067 0246 0698 0517
Seleco	0117 0132 0040 0193 0546 0379 0243 0324 0236 0067
Sencora	0236 0289 0193 0441
Sentra	0039
Serino	0065 0248 0039
Sharp	0485 0640
Shorai	1223 0123 0187 0066 0324 0683 0083
Siam	0324
Siarem	0067
Siemens	0193 0117 0132 0243
Sierra	0221 0230 0225 0243 0357 0358 0187 0067
Siesta	0067 0586 0042
Silva	0400
Silver	0246 0067
Singer	0066 0391
Sinudyne	0117 0132 0277 0430 0465 0039
Sogera	0117 0265 0132 0243 0324 0193 0391 0546 0379 0040 0236
Solavox	0067
Sonitron	0350
Sonneclair	0391 0102 0193 0578
Sonoko	0238 0400 0247
Sonolor	0067
Sontec	0067 0039 0294 0312 0247
Sony	0238 0597 0193 0430 0535 0040 0578
Sound & Vision	0067 0400 0324
Soundwave	1535 1040 1681 0535 0040 0041 0030 0066 0132 0681 0104
Ssangyong	0132 0248 0404
Standard	0067 0350 0448
Starlite	0039
Stenway	0248 0039 0247 0350 0067 0404
Stern	0039 0193 0067 0294
Strato	0312 0248
Sunkai	0236 0289 0193
Sunstar	0067 0294 0039
Sunwood	0324 0385 0351 0485 0248 0265 0067 0517
Superla	0401 0067 0039
Supertech	0067 0039
Supra	0546 0246
Susumu	0039 0067 0246 0586
Sutron	0404 0039
Swissline	0365
Sydney	0039
Sytong	0277
Tandberg	0246 0247
Tandy	0246
Tashiko	0397 0441 0139 0367 0226 0391
Tatung	0248 0102 0247 0277 0123
Teac	0066 0247 0246 0389 0193
TEC	0102 0546 0247 0067 0041
Tech Line	0067 0542 0485 0294 0039 0442 0379
Technema	0247 0039 0277 0501 0365 0367 0289
Technisat	0067 0698
Tedelex	0350
Teleavia	0685
Telecor	0247
Telefunken	0139 0531 0317 0226 0429 0235 0363 0520
Telefusion	0067 0193 0248 0247 0289 0424
Telegazi	0139 0531 0528 0501 0429 0317 0104 0114 0131 0365 0292
Telemeister	0336 0373 0226 0067 0655
Telesonic	0067
Telestar	0067 0193 0289 0248 0294
Teletech	0350 0067
Teleton	0067
Televideon	0039 0277 0367 0067 0698
	0247 0236 0193 0379 0289 0066
	0350 0193 0246

Televiso	0430
Temco	0324
Tempest	0039
Tensai	0134 0248 0067 0247 0324 0350 0039 0135 0404 0401 0277
Tenson	0350 0039
Tevion	0549 0067
Texet	0247 0404 0039
Thomson	0317 0429 0139 0531 0363 0501 0365 0226 0228 0235 0267 0373 0067 0520 0590 0655
Thorn	0268 0104 0114 0067 0134 0365 0542 0389 0404 0065
Tokai	0102 0067 0367 0193 0247 0404 0039
Tokyo	0246 0065
Tomashi	0312 0248
Toshiba	0065 0538 0273 0066 0100 0132 0247
Towada	0379 0132 0247
Trans Continens	0247 0067
Trident	0546 0247
Tristar	0248
Triumph	0546 0376 0586 0067 0273
Uher	0106 0067 0236 0350 0333 0404 0448 0400 0289
Ultravox	0117 0132 0404 0277 0246 0193 0243 0067
Unic Line	0067 0503
United	0067
Universum	0376 0135 0225 0503 0391 0277 0522 0510 0400 0230 0448 0041 0542 0324 0066 0187 0100 0193 0294 0134 0067 0441 0104 0336 0243 0357 0358 0040 0535 0106 0379 0247 0531 0139 0367 0661 0698
Univox	0367 0117 0067 0193 0268
Vestel	0067 0193 0247
Vexa	0039 0067
Videologique	0246 0248 0247
VideoSystem	0067
Videotechnic	0246 0350 0247
Videoton	0193
Vidikron	0132
Viper	0367
Visiola	0246
Vision	0067 0350
Vistar	0236 0391
Vortec	0067
Voxson	0117 0106 0067 0448
Waltham	0247 0448 0317 0415 0067
Watson	0067 0350 0193 0248 0243 0609 0549 0424 0039 0698
Watt Radio	0243 0132 0379 0193 0246
Wega	0243 0066 0117 0067
Wegavox	0039
Weltblick	0067 0350
White Westinghouse	0350 0246 0067 0367
Winco	0442
Windstar	0312
Xrypton	0067
Yamishi	0312 0485 0248 0067 0247
Yokan	0067
Yoko	0247 0067 0248 0294 0039 0400 0246
Yorx	0248
Zanussi	0236 0247

19. Technical Data

- 250 MHz IBM PowerPC Processor (350 Mips)
- Linux open source (most parts under GPL)
- supports Linux Standard API (Direct-FB, Linux-FB, LIRC)
- 1 x DVB Common Interface slot
- 2 x Smartcard-Reader
- Integrated compact Flash reader (front slot) for e.g. camera memory cards
- MPEG2 hardware decoding (DVB compatible)
- future support for MPEG4 decoding
- Tuner variant NIMs (DVB-S, DVB-T, DVB-C)
- 100 MBit full duplex Ethernet Interface
- USB port 1.2, keyboard, mouse, webcams (not yet) and other devices
- V.24/RS232 connection
- large area LCD display
- 64 MByte RAM (working storage)
- built-in IDE UDMA66 Master/Slave connection
- hard disk for all common sizes
- unlimited channel list for TV/Radio
- change of channel in less than one second
- fully automated channel search
- support for bouquet lists (indirect unlimited)
- EPG support (electronic program guide)
- Videotext support
- applications such as Web browser or mail clients
- support for multiple LNB switching (DiSEqC)
- adaptable OSD in many languages (skin support)
- SPDIF optical connection AC-3 / DTS
- 2 x Scart connections (completely software controlled)
- MINI-DIN: connection for external IR (send/receive) and I2C for external rotor control
- internal send/receive diodes (video recorder)

DBS-Tuner:

Input frequency range 950 2150 MHz

Input level range - 65 dBm - 25 dBm

noise figure 12 dB max.

DBS tuner input F socket

input impedance 75 Ohms

AFC capture range +/- 3 MHz

Demodulation shaped QPSK

Symbol rate 2 45 Mbaud/s, SCPC / MCPC

FEC Viterbi and Reed-Solomon

Viterbi rates 1/2, 2/3, 3/4, 5/6, 7/8, automatic adjustment

Roll-off factor 35 %

Demultiplexing according to ISO 13818-1

Common Interface power consumption max. 0,3A/5V

Video decoding:

Videocompression MPEG-2 and MPEG-1 compatible

Video standard PAL G/ 25 Hz

Picture format 4:3 / 16:9

Picture material 16:9, automatic adjustment for 16:9 TV equipment (via Scart)

Letterbox filtering for 4:3 TV equipment

Audio coding:

Audio compression MPEG-1 & MPEG-2 Layer I and II

Audio Mode Dual (main/sub), stereo

Sampling frequencies 32 kHz, 44.1 kHz, 48 kHz, 16 kHz, 22.05 kHz, 24 kHz

Analog output:

output level L/R 0.5 Vss to 600 Ohms

THD > 60 dB (1 KHz)

Crosstalk < -65 dB

Digital output:

output level 0.5 Vss to 75 Ohms

sampling frequencies 32 kHz, 44.1 kHz, 48 kHz

S/PDIF output optical (AC3)

Video parameters:

input level FBAS 1 Vss +/- 0.3 dB into 75 Ohm

Teletext filtering according to ETS 300 472 standard

TV Scart:

Output: FBAS,RGB,S-VHS over OSD selectable

VCR Scart:

Input: FBAS,RGB,S-VHS

Output: FBAS,S-VHS

RS 232 serial interface:

Type RS232 bi-directional

Bitrate 115.2 kBit/s max.

Connector SUB-D-9 socket

Function update of the operating software and pre-programming

Ethernet:

100 MBit bi-directional

Function update of the operating software and pre-programming

USB:

USB 1.2 connection

Mini-Din:

I2C for control of external devices (Option rotor control)

IR functions send / receive

UDMA66 IDE interface:

Internal, for connection of HDD max. 500mA

various sizes

Compact Flash reader

LNB power supply:

LNB power 500mA max. ; short-circuit proof

LNB voltage vertical < 14V without load, > 11,5V at 400mA

LNB voltage horizontal < 20V without load, > 17.3V at 400mA

LNB switch-off in standby mode

Number of active satellite positions:

DiSEqC 1.0/1.2 SAT POSITION / SAT OPTION

DiSEqC – Rotor control

Power consumption:

< 20W (in operation, horizontal polarisation / 400mA LNB power)

< 11W (in operation, without LNB)

< 2W (deep standby mode)

Input voltage:

180V... 250V / 50Hz AC voltage +/- 15%

General:

Environmental temperature +15°C...+15°C

Atmospheric humidity < 80%

Dimensions (W x D x H): 374 mm x 230 mm x 63 mm

Weight: 1.8 kg without HDD

20. Glossary of terms

AC3

Dolby Digital, sound system

AGC

Automatic Gain Control. . This always provides the best picture quality. It does not, however, guarantee a perfect picture, as the AGC is dependent on the input signal. The poorer the input signal, the less the AGC can manage.

Analog

An ordinary signal transmission procedure, where the fluctuations of the signal exactly correspond to the sound and picture waveforms of the source.

Aspect ratio

Ratio of lengths of picture sides, e.g. 4:3 or 16:9

Bouquets

A bouquet is (like a bouquet of flowers) a package of programmes from a single Pay-TV provider.

CA

Conditional Access. Control the user's access to services and programmes which are encrypted for copyright or commercial reasons.

CI

Common Interface - Conditional Access Module. The basic idea of the Common Interface (CI) is as follows. There is a uniform, standard interface for the many television and radio programmes, Internet and software products for which charges are levied.. To enable you to receive encrypted programmes with the satellite receivers Irdeto, Cryptoworks, Conax, Nagravision, Viaccess, this is equipped for the age of Common Interface. Of course, all Common Interface options are available to you with the multi-access modules for the sat-receivers with CI. Pay-TV programmes are normally encrypted; the screen is black, and there is no sound. After the subscription fees or a one-time charge for the smartcard have been paid, the associated TV offerings can be seen decrypted. The CI-CA module compares the code in the box with the one broadcast. If they match, the relevant programmes are decrypted and thus become visible. There are CI-CA modules for different encryption systems (Cryptoworks, Conax, Nagravision, Viaccess and soon also from Irdeto). In order to watch Pay-TV programmes, as well as the CI-CA modules, you need a Sat-Receiver with Common Interface, a multi-access module with a CI slot and the corresponding smartcard from the programme supplier.

Coding systems

see Encryption systems.

CF

Compact Flash. Standard for a storage medium (memory card) with Flash memory which retains information even without power. CF is a scaled-down, minimally altered version of PCMCIA memory cards with the ATA interface. This makes it possible to operate them over a simple PCMCIA adapter without controller logic. The cards come in three variants (I, II and III), according to their thickness. However, most devices prefer type I.

DAB

Digital Audio Broadcasting. The system offers additional capacity for data transmission, Data compression is by MPEG-2.

Data reduction

Compression of picture and sound signals. Redundant information is omitted.

Digital

The signal transmission method of the future. Signals are transformed into binary code (0's and 1's) and broadcast in this form. See, by contrast, Analog. The latest digital satellite receivers implement the future in this way.

DiSEqC

Digital Satellite Equipment Control (pronounced: die-sec). Developed by Philips for Eutelsat. Anyone who wants to receive analog and digital programs from Astra, Eutelsat, and potentially other satellites cannot avoid DiSEqC. The set-top box delivers control signals in digital form with which multiple antennae can be selected. In contrast to previous analog control signals (14 / 18 volt and 22 kHz), the DiSEqC system provides a much larger number of switching possibilities for control and monitoring of the equipment components of a receiving set-up. DiSEqC is a trademark of the European Satellite Organization (EUTELSAT).

Dolby Digital 5.1

Dolby Digital is a sound transmission system which makes it possible to reproduce digital surround sound on a home cinema system.

Downlink

The transmission segment from the satellite to the receiving antenna on the ground is described as the downlink. Television broadcasters often use satellite transmission from the filming location to the broadcasting station. The advantage: It is the quickest way to transport large data volumes over long distances.

DTS

Digital Theatre System, sound system

DVB - S / T / C

Digital Video Broadcasting. Transmission of video and sound signals in digital form. DVB-S indicates satellite transmission, DVB-T terrestrial transmission and DVB-C cable transmission. A project initiated in Europe which promotes standardisation of satellite, terrestrial and cable transmission of digital television signals. Numerous organisations and institutions participate in the DVB project, now including many from countries outside Europe. Digital receivers which are developed and manufactured in accordance with the DVB standards can be identified by bearing the DVB logo. Digital satellite receivers of course bear this logo.

DVD

Digital Versatile Disc.

EPG

Electronic Programme Guide. The electronic programme guide shows you information on the broadcast selected.

Gateway

Entrance, gate. This is a computer which links two networks together. In the more precise sense, it refers to connections between two different online systems, e.g. CompuServe and the Internet, or between mailbox networks (Fido, Maus ...) and the Internet.

I²C

The 2 should be a superscript (I squared). A bus which was developed by Philips at the end of the 70's for entertainment electronics. It was used as the basis for the System Management Bus (SMB) and Display Data Channel (DDC).

IDE

Integrated Drive Electronics. Type of hard disk in which the electronics for controlling the mechanism etc. is integrated in the disk drive itself, and the controller thus does not need to be involved in this, as previously with the AT. It is rather primitive in comparison with SCSI, but also (somewhat) cheaper, and has therefore become established.

IP

Internet Protocol. Level 3 protocol in the TCP/IP communications standard. It mediates data packets in "insecure" mode. The Internet is based on this protocol.

IR

Infrared. A wavelength which lies below that of visible light. It is used for data transmission, e.g. for very small computers (PDAs) and for remote control units.

LCD

Liquid Crystal Display is a technology which is used in notebooks and other computers for presenting images and symbols. In contrast to LED (Light Emitting Diode) and gas plasma technologies, LCD allows a much higher resolution than cathode ray tube technology (CRT).

LNB /LNC

Low Noise Blockconverter / Low Noise Converter (feed system). Converts the downlink satellite frequencies to 1.Sat-ZF. Receiver component on or in the satellite antenna, which receives the high frequencies of the satellites, amplifies them, and converts them to the lower medium frequency.

LOF

Fixed frequency around which the high input frequency of the satellite signal is translated (L.O.F. = Local Oscillator Frequency).

MCPC

Multiple Channel Per Carrier. Transmission system which uses a single transponder for multiple channels. (see also SCPC).

MHz

Megahertz. Number of oscillations of a signal per second. Unit: Hertz. One kilohertz (kHz) corresponds to a thousand oscillations per second, one megahertz (MHz) to a million oscillations per second, and one gigahertz (GHz) to a billion oscillations per second.

Mini-DiSEqC

Two universal single LNBs, for digital and analog, reception can be controlled with the help of the „Tone-Burst“ analog switching signal (also known as Mini-DiSEqC). 14/18 volts and 22 kHz are then controlled over a special DiSEqC multi-switch.

MIPS

Millions of Instructions Per Second. Measurement of millions of machine instructions carried out per second. Wags say it stands for „Misleading Interpretation of Processor Speed“. Also a company of this name which produces processors and other chips (in RISC architecture).

MPEG2

Data reduction method for picture and sound. In contrast to the analog method (where 25 full pictures with all information are transmitted per second) the MPEG method only takes account of the actual changes in the picture.

NVoD

Near Video on Demand. The same film is transmitted on different channels at certain time intervals, such as quarter hour, half hour or hour.

OSD

On Screen Display. When operating the receiver, the functions are displayed as an on-screen menu, blended into the television picture. The OSD of most satellite receivers offers various languages for its on-screen menu.

PCMCIA

Abbreviation for Personal Computer Memory Card International Association, a standard.

PCR

Program Clock Reference, a time marker is set at least every 100 milliseconds for each signal transported in the transport stream, in order to synchronise the system time of the decoder.

PID

Packet Identification. This means that individual packages received in the transport stream must be identified. The identification is a four-digit code, separated by audio and video. Thus, for example, over-writing of SCPS signals is prevented.

PPV

Pay per view. This allows subscribers to a bouquet to book individual films or other transmissions.

QPSK / QAM

Quadrature Phase Shift Keying is a modulation method for digital television programmes received via satellite. In cable networks, different demands are placed on the transmission of digital signals. A different modulation process is therefore required, "Quadrature Amplitude Modulation" (QAM). Since a set-top box can only command one of the two procedures, it is necessary to know the route by which digital television programmes are to be received.

RGB

Red, Green, Blue. Colour model in which the colour is defined by the proportions of red, green and blue. Other colour models: CMY, HSV, HLS. Also the name for a particular monitor signal, since monitors have electron beams for red, green and blue, and can thus be directly controlled.

RS232

A widely used interface between computers and other serial devices such as modems, printers and mice. Software updates can be fed in over the RS232 connection (for Windows computers, the COM interface).

Scart

21-pole cable connection for picture and sound transmission, for example from the satellite receiver of video recorder to the television. The usual connection between television and video recorder, it is also used to connect the set-top box with both of these units. Picture and sound can be placed back and recorded in this way.

Smartcard

Similar to a credit card, used with the CA module of the set-top box, it makes possible participant identification and access control for an encrypted Pay-TV or TV channel.

SNR

Signal to Noise Ratio. The difference between the signal level and the noise on an information channel.

SCPC

Single Channel Per Carrier – transmission system (digital or analog) which uses a separate carrier for each channel on a transponder (see also MCPC).

S/PDIF

Sony/Philips Digital Interface Format. Definition of an interface and a protocol for digital audio data, used in consumer equipment.

Symbolrate

Parameter for digital reception. Represents the data transmission rate for an MCPC or SCPC signal, and is stated in Megasymbols per second (MS/s). The symbol rate represents the speed with which data is transmitted. The receiver must synchronise itself to this speed. MCPC channels usually operate with a symbol rate of 27,500, and SCPC channels with symbol rates between 4,000 and 7,000.

Transponder

Satellite transponder/channel with defined frequency bandwidth. In analog technology, one TV programme and a number of sound channels can be transmitted per transponder. In digital technology (QPSK), the transmission capacity is 6-10 TV programmes with sound channels.

UDMA

Ultra Direct Memory Access. A technology for IDE disk drives, which offers twice the speed of the EIDE transmission mode.

USB

Universal Serial Bus. An open, public domain, plug-and-play capable serial bus for connecting devices which operate at up to 12 Mbits/second, and also for slower devices such as keyboard, mouse and monitor. Developed by Intel with Microsoft, IBM, Compaq, DEC, NEC and Northern Telecom. It has only one type of plug, allows connection of up to 127 devices, asynchronous and isochronous (precisely times) data transfer, flexible data packets, and connection while running (Hotplug).

Encryption systems

1. Seca: The encryption system developed by the company Société Européenne de Contrôle d'Accès (Seca) for Canal plus was first used in France for the Canal numérique package.
2. Irdeto: Dutch producer of the encryption system of the same name for digital Pay TV, currently used in Italy, Greece, and the Benelux countries as well as in many other countries. Irdeto now belongs to the Mindport group.
3. Viaccess: The encryption developed by France Telecom, is used principally for the French packages AB-Sat and TPS (both on Eutelsat 13 degrees east). It is, however, also used by SRG for encryption of its digital SAT programme range (restriction of the technical coverage for licensing reasons).
4. Cryptoworks: A CA system developed by Philips.
5. Nagra: With Seca (Canal+) the second digital coding method used in Spain. The programme package Via Digital on Hispasat (30 degrees west) is coded in Nagra, as are Pay TV programmes in the cable network of the Spanish Telefonica.
6. Conax: since the reorganisation of the Pay TV providers in Scandinavia, the general coding standard for the Scandinavian Telenor. The satellite receivers, with Common Interface, are thus ready for the digital age. Already, almost all

manufacturers offer the technology of tomorrow. Here, everyone can decide for himself when the receiver should be outfitted with various encryptions. The greatest flexibility is achieved with the multi-access modules from various manufacturers. Here, there is the option of one or two Common Interface slots. They can also be added later, without difficulty. The multi-access modules provide the greatest possible security that they will in the future continue to reign supreme in the world of encrypted digital programmes.

VoD

Video on Demand. In contrast to Pay TV, where a subscription is taken out for a complete programme, here only individual broadcasts and films are ordered and paid for. Until now, it was necessary to go the video store in order to find your favourite film from a wide range. Video on demand offers this selection at home and over the television. The film selected is received with the set-top box.

VCR

Video Cassette Recorder (Video recorder)

ZF

Satellite intermediate frequency = output frequency range of the LNC, e.g. 950 to 1050 MHz. Created by mixing the satellite reception frequency with the oscillator frequency (L.O.F.)

Brand names here are protected by copyright and are the property of the respective name-bearers.

Garantieschein, Warranty card, Carte de garantie

WICHTIG!

Bei Reklamationen, Garantiefällen u.Ä. das Gerät bitte zu dem Händler schicken/geben, bei dem es erworben wurde. **NICHT AN DREAM MULTIMEDIA TV GMBH SCHICKEN!**
Falls Ihre DREAMBOX mit einer HDD nachgerüstet wurde, legen Sie bitte unbedingt den ausgefüllten und gestempelten EINBAUSCHEIN HDD dem GARANTIESCHEIN bei!

IMPORTANT!

In case of complaints or warranty claims, please return the unit to the dealer from whom it was purchased. **DO NOT RETURN IT TO DREAM MULTIMEDIA TV GMBH!**
If your Dreambox has been equipped with a HDD, it is most important that you include the HDD installation card, filled in and stamped, with the warranty card!

IMPORTANT!

En cas de réclamations, de revendication de prestations de garantie et autres semblables, veuillez expédier/remettre l'appareil au revendeur chez qui vous l'avez acheté.

PRIÈRE DE NE PAS L'EXPÉDIER A DREAM MULTIMEDIA TV GMBH!

Si votre DREAMBOX a été ultérieurement dotée d'un disque dur (HDD), veuillez impérativement joindre la CARTE DE MONTAGE HDD remplie et cachetée à la CARTE DE GARANTIE!

Gerätetyp / Device type / Type d'appareil: _____

Ser.-Nr. / Ser. No. / N° de série: _____

Service Bericht / Service Report / Rapport de maintenance: _____

Adresse des Endkunden / Address of customer / Adresse du client final: _____

Name / Name / Nom: _____

Straße / Street / Rue: _____

PLZ / Postcode / Code postal: _____ Ort / Town / Ville: _____

Land / Country / Pays: _____

Adresse des Händlers / Address of dealer / Adresse du revendeur: _____

Name / Name / Nom: _____

Straße / Street / Rue: _____

PLZ / Postcode / Code postal: _____ Ort / Town / Ville: _____

Land / Country / Pays: _____

Stempel / Stamp / Cachet: _____

Kaufdatum / Date of purchase / Date d'achat: _____

Unterschrift / Signature: _____

Einbauschein HDD, HDD installation card, Carte de montage HDD

Gerätetyp / Device type / Type d'appareil: _____

Ser.-Nr. / Ser. No. / N° de série: _____

Service Bericht / Service Report / Rapport de maintenance:

Einbaudatum / Installation date / Date de montage: _____

Festplattentyp / Hard disk type / Type de disque dur: _____

Neue Siegelnummer / New seal number / Nouveau numéro de sceau: _____

Sonstiges / Other / Divers: _____

Adresse des Endkunden / Address of customer / Adresse du client final:

Name / Name / Nom: _____

Straße / Street / Rue: _____

PLZ / Postcode / Code postal: _____ Ort / Town / Ville: _____

Land / Country / Pays: _____

Adresse des Händlers / Address of dealer / Adresse du revendeur:

Name / Name / Nom: _____

Straße / Street / Rue: _____

PLZ / Postcode / Code postal: _____ Ort / Town / Ville: _____

Land / Country / Pays: _____

Stempel / Stamp / Cachet:

Kaufdatum / Date of purchase / Date d'achat:

Unterschrift / Signature:

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